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### **Subchapter 13: Effluent Limitations for DSW Permits**

#### **7:14A-13.1. Purpose and Scope**

This subchapter sets forth the procedures the Department will use in imposing numeric or non-numeric effluent limitations in DSW permits.

#### **7:14A-13.2. Types of Effluent Limitations**

(a) Each DSW permit shall include conditions meeting the following requirements, as applicable:

1. Technology based limitations determined in accordance with N.J.A.C. 7:14A-13.3 and 13.4. Technology based limitations include secondary treatment standards for DTWs, effluent limitations guidelines, and case-by-case limitations developed through a best professional judgment analysis. Applicability criteria are at N.J.A.C. 7:14A-13.3(b);
  - i. For DTWs, effluent limitations based on secondary treatment as defined at 40 CFR 133 and incorporated into N.J.A.C. 7:14A-12;
  - ii. For dischargers other than DTWs, effluent limits requiring:
    - (1) Effluent limitations based on the best practicable control technology currently available (BPT);
    - (2) For conventional pollutants, effluent limitations based on the best conventional pollutant control technology (BCT);
    - (3) For all toxic pollutants, effluent limitations based on the best available technology economically achievable (BAT);
    - (4) For pollutants which are neither toxic nor conventional pollutants, effluent limitations based on BAT.
2. Water quality based limitations determined in accordance with N.J.A.C. 7:14A-13.6 when the Department has determined that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above the SWQS. Water quality based limitations include limitations based on a TMDL adopted in accordance with N.J.A.C. 7:15-7. Applicability criteria are at N.J.A.C. 7:14A-13.3(a);
3. Limitations based on a WQM Plan adopted in accordance with N.J.A.C. 7:15. Applicability criteria are at N.J.A.C. 7:14A-13.3(d);
4. Limitations based on State effluent standards in accordance with N.J.A.C. 7:14A-12 and N.J.A.C. 7:14A-5.3. Applicability criteria are at N.J.A.C. 7:14A-13.3(c); and
5. Limitations based on existing effluent quality and determined in accordance with N.J.A.C. 7:14A-13.8 when the Department determines that such limitations are necessary. Applicability criteria are at N.J.A.C. 7:14A-13.3(e).

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7:14A-13.3 Applicability of Effluent Limitations

(a) DSW permits shall include water quality based effluent limitations or requirements where the Department determines that effluent limitations, guidelines or standards established pursuant to (b) through (e) below are not sufficient to achieve surface water quality standards established pursuant to N.J.A.C. 7:9B, or to attain and maintain a specified water quality through water quality related effluent limitations established pursuant to Section 302 of the Federal Act. In addition:

1. Where the Department determines that a discharge may adversely impact a waterbody with a higher use classification or antidegradation designation downstream of the discharge location, water quality based effluent limitations shall be developed and included in the discharge permit to ensure that the water quality standards applicable to the higher classification or antidegradation designation of the downstream waterbody shall be attained and maintained; and
2. Where the Department determines that a discharge may cause, contribute, or have the reasonable potential to cause an excursion above the surface water quality standards of another state, water quality based effluent limitations shall be developed and included in the discharge permit to ensure that the water quality standards for the affected waters of the other state shall be attained and maintained.

(b) DSW permits issued for direct discharges of industrial wastewater shall include technology based effluent limitations and standards promulgated under Section 301 of the Federal Act (33 U.S.C. §1311), new source performance standards promulgated under Section 306 of the Federal Act (33 U.S.C. §1316), or case-by-case effluent limitations determined under Section 402(a)(1) of the Federal Act (33 U.S.C. §1342(a)(1)), or N.J.A.C. 7:14A-13.4, or a combination, in accordance with N.J.A.C. 7:14A-13.4.

1. Technology based treatment requirements under section 301(b) of the Federal Act represent the minimum level of control that shall be imposed in a permit. Where such technology based limitations are more stringent than other applicable limitations listed at N.J.A.C. 7:14A-13.2, the technology based limitations shall be included in the permit.
2. Technology based treatment requirements may be imposed through one of the following methods:
  - i. Application of USEPA promulgated effluent limitations developed under section 304 of the Federal Act (33 U.S.C. §1314) to dischargers by category or subcategory. A permittee may seek fundamentally different factors variances from these effluent limitations under N.J.A.C. 7:14A-11.7(b)1.
  - ii. On a case-by-case basis under section 402(a)(1) of the Federal Act, to the extent that USEPA promulgated effluent limitations are inapplicable. The Department shall apply the appropriate factors listed in N.J.A.C. 7:14A-13.4 and shall consider:

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- (1) The appropriate technology for the category or class of point sources of which the applicant is a member, based on available information; and
      - (2) Any unique factors relating to the applicant.
    - iii. Through a combination of the methods in (b)2i and ii above. Where promulgated effluent limitations or guidelines apply only to certain aspects of the discharger's operation, or to certain pollutants, other aspects or activities are subject to regulation on a case-by-case basis in order to carry out the provisions of the Federal or State Act.
    - iv. Limitations developed under (b)2ii above may be expressed, where appropriate, in terms of toxicity (that is,  $LC_{50}$  or  $IC_{25}$ ), provided the fact sheet demonstrates that the limits reflect the appropriate requirements.
  3. Technology based limitations for new sources may be imposed through one of the following methods:
    - i. Application of USEPA promulgated new source standards developed under section 304 of the Federal Act to dischargers by category or subcategory.
    - ii. On a case-by-case basis to the extent that USEPA promulgated effluent limitations are inapplicable or are not available, the Department shall apply the appropriate factors listed in N.J.A.C. 7:14A-13.4 and shall consider:
      - (1) The appropriate technology for the category or class of point sources of which the applicant is a member, based on available information; and
      - (2) Any unique factors relating to the applicant.
- (c) DSW permits shall include State effluent standards at N.J.A.C. 7:14A-12 and N.J.A.C. 7: 14A-5.3 as follows:
1. Secondary treatment standards at N.J.A.C. 7:14A-12.2 are the minimum treatment standard applicable to DTWs for  $BOD_5$ , total suspended solids, and pH;
  2. State effluent standards at N.J.A.C. 7:14A-12.5 for disinfection, N.J.A.C. 7:14A-12.6 for foam, N.J.A.C. 7:14A-12.8 for oil and grease, and N.J.A.C. 7: 14A-5.3 for whole effluent toxicity and phosphorus are the minimum treatment standard;
  3. State  $BOD_5$  effluent standards at N.J.A.C. 7:14A-12.4 shall be incorporated into DSW permits for discharges into the named waterbodies where the Department has not adopted a TMDL for the waterbody;

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4. The Department shall include effluent limitations for site remediation activities equal to the remediation effluent standards listed in N.J.A.C. 7:14A-12 Appendix B for any pollutant or pollutant parameter which either results from any remedial action or is present on-site at a concentration greater than the applicable Surface Water Quality Standards, unless it has been demonstrated to the Department's satisfaction that the pollutant, upon discharge, will not cause, have the reasonable potential to cause, or contribute to an excursion above any applicable Surface Water Quality Standards. The Department may include limitations for additional pollutants or pollutant parameters provided the statement of basis or the permit fact sheet includes a specific rationale for the requirement.
5. State effluent standards for the toxic effluent standards at N.J.A.C. 7:14A-12 Appendix C will be included in a discharge permit for a new source, a new discharge, or an expanded direct discharge in accordance with (c)5i through v below only if the permittee requests such limitations in accordance with N.J.A.C. 7:14A-4.4. A request shall specifically list each pollutant or pollutant parameter for which a limitation based on N.J.A.C. 7:14A-12 Appendix C is requested. The applicant shall not be required to submit a water quality study for any pollutant or pollutant parameter for which the Department determines that limitations based on N.J.A.C. 7:14A-12 Appendix C, when imposed on the discharge, are anticipated to ensure that the surface water quality standards, including antidegradation requirements, will be attained.
  - i. Limitations based on N.J.A.C. 7:14A-12 Appendix C shall not be used to relax a more stringent existing effluent limitation or standard, including limitations to be applied to the expansion of an existing discharge.
  - ii. Limitations based on N.J.A.C. 7:14A-12 Appendix C shall be used on a site-specific basis and consideration of the factors listed at (c)5ii(1) through (3) below only for discharges to waterbodies with the following classifications and antidegradation designations as defined in the Surface Water Quality Standards: FW2-NT (Category 2); FW2-TM (Category 2); SE1 (Category 2); SE2 (Category 2); SE3 (Category 2); or SC (Category 2). In no case shall N.J.A.C. 7:14A-12 Appendix C limitations be included in a discharge permit for a discharge to waters classified as FW1; FW2-TP; PL; any Category 1 water; any water with existing active shellfish harvesting activities, any intermittent stream, or immediately upstream or directly into any impoundment.
    - (1) Limitations based on N.J.A.C. 7:14A-12 Appendix C shall be used for discharges to FW2-TM (Category 2) waters only when the Department determines that all Surface Water Quality Standards, including antidegradation requirements, will be attained;

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- (2) Limitations based on N.J.A.C. 7:14A-12 Appendix C shall be used for new sources or expanded direct discharges discharging to a waterbody only after consideration by the Department of the basis for any effluent limitations in place for existing discharges to the waterbody; and
    - (3) Limitations based on N.J.A.C. 7:14A-12 Appendix C shall be used for new sources or expanded direct discharges discharging to a waterbody only after consideration by the Department of the potential effects of the discharge on downstream high quality waters or rare or endangered species habitat, the effective dilution at the point of discharge, or any other appropriate site specific factors.
  - iii. Limitations based on N.J.A.C. 7:14A-12 Appendix C shall not be used where the Department determines that insufficient assimilative capacity is available in the receiving waterbody to allow the proposed discharge and to ensure that the Surface Water Quality Standards will be attained.
  - iv. When limitations based on N.J.A.C. 7:14A-12 Appendix C are requested by an applicant, the Department shall evaluate existing data to determine, if possible, whether the receiving waterbody is currently attaining the Surface Water Quality Standards. Where the waterbody is not currently attaining the SWQS, for the pollutants for which the N.J.A.C. 7:14A-12 Appendix C effluent limitations are requested, such, effluent limitations shall not be used.
  - v. Effluent limitations developed in accordance with N.J.A.C. 7:14A-13.4 or 13.6 which are more stringent than the limitations based on N.J.A.C. 7:14A-12 Appendix C shall be imposed when such limitations are developed. Limitations based on N.J.A.C. 7:14A-12 Appendix C which have been imposed on each discharge shall be evaluated as a part of the TMDL process for each pollutant or pollutant parameter.
    - (d) DSW permits shall include effluent limitations based on a WQM Plan adopted in accordance with N.J.A.C. 7:15 unless limitations based on (a), (b), (c)1, or (c)2 above are more stringent.
    - (e) DSW permits shall include effluent limitations based on existing effluent quality when the Department determines that an effluent limitation is appropriate for the pollutant or pollutant parameter of interest and a limitation has not been established in accordance with (a) through (d) above.
- 7:14A-13.4. Establishment of technology based limitations
- (a) The discharge permit shall include technology based effluent limitations to control all toxic pollutants which the Department determines are or may be discharged at a level

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greater than the level which can be achieved by the technology-based requirements appropriate to the permittee under N.J.A.C. 7:14A-13.3(b)2.

(b) The Department may determine that surrogate limitations established in accordance with N.J.A.C. 7:14A-13.10 will provide controls for one or more of the pollutants identified under (a) above.

(c) In setting case-by-case technology based limitations, the following factors shall be considered:

1. For best practicable control technology (BPT) requirements:
  - i. The total cost of application of technology in relation to the effluent reduction benefits to be achieved;
  - ii. The age of the equipment and facilities involved;
  - iii. The process employed;
  - iv. The engineering aspects of the application of various types of control techniques;
  - v. Process changes; and
  - vi. Non-water quality environmental impacts, including energy requirements.
2. For best conventional pollutant control technology (BCT) requirements:
  - i. The reasonableness of the relationship between the costs of attaining a reduction in the pollutant(s) and the benefits derived from the pollutant reduction;
  - ii. Cost and level of treatment comparisons between DTWs and a class or category of industrial sources;
  - iii. The age of the equipment and facilities involved;
  - iv. The process employed;
  - v. The engineering aspects of the application of various types of control techniques;
  - vi. Process changes; and
  - vii. Non-water quality environmental impacts, including energy requirements.
3. For best available technology (BAT) requirements for toxic pollutants and non-conventional pollutants:
  - i. The age of the equipment and facilities involved;

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- ii. The process employed;
- iii. The engineering aspects of the application of various types of control techniques;
- iv. Process changes; and
- v. Non-water quality environmental impacts, including energy requirements.

(d) The Department shall set a permit limit for a conventional pollutant at a level more stringent than the best conventional pollutant control technology, or a limit for a nonconventional pollutant which shall not be subject to modification under Section 301(c) or (g) of the Federal Act, where either (d)1 or 2 below apply. The permit fact sheet required by N.J.A.C. 7:14A-15.8 shall set forth the basis for the limitation, including a finding that compliance with the limitation will result in the BAT level of control of the toxic or hazardous pollutant discharges identified, and a finding that it would be economically or technically infeasible to directly limit the toxic or hazardous pollutant(s).

- 1. Effluent limitations guidelines specify the pollutant as a surrogate for a toxic or hazardous pollutant; or
- 2. The limitation reflects the BAT level of control of the discharge of one or more toxic or hazardous pollutants which are present in a waste stream, and a specific BAT limitation upon the toxic or hazardous pollutant(s) is not feasible for economic or technical reasons. The permit shall identify which toxic or hazardous pollutants are intended to be controlled by the use of the limitation.

(e) The Department shall set a permit limit for a conventional pollutant at a level more stringent than best conventional pollutant control technology when:

- 1. Effluent limitations guidelines specify the pollutant as an indicator for a hazardous substance; or
- 2. The limitation reflects best available technology level of control of the discharge of one or more hazardous substances which are present in a waste stream, and a specific best available technology limitation upon the hazardous substance(s) is not feasible for economic or technical reasons. The permit shall identify which hazardous substances are intended to be controlled by the use of the limitation. The statement of basis under N.J.A.C. 7:14A-15.7 or the permit fact sheet required by N.J.A.C. 7:14A-15.8 and 40 CFR Part 124.56 shall set forth the basis for the limitation, including a finding that compliance with the limitation will result in the best available technology level of control of the hazardous substances identified in the discharge, and a finding that it would be economically or technically infeasible to directly limit the hazardous substance(s).

(f) The Department shall not set a more stringent limit under (d) or (e) above if the method of treatment required to comply with the limit differs from that which would be required if the toxic pollutants or hazardous substances controlled by the limitation were limited directly.

(g) Toxic pollutants identified under (d) above shall be subject to the provisions of N.J.A.C. 7:14A-11.2 concerning establishing permit conditions.

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(h) (Reserved)

(i) Technology based treatment requirements shall be applied prior to or at the point of discharge.

(j) Technology based treatment requirements cannot be satisfied through the use of non-treatment techniques such as flow augmentation and instream mechanical aerators. However, these techniques may be considered as an acceptable method of achieving ambient water quality standards on a case-by-case basis when:

1. The technology based treatment requirements applicable to the discharge are not sufficient to meet the ambient water quality standards;
2. The discharger waives any opportunity to request a variance under section 301(c), (g), or (h) of the Federal Act; and
3. The discharger demonstrates that such a technique is the preferred environmental and economic method to achieve the ambient water quality standards after consideration of alternatives such as advanced waste treatment, recycle and reuse, land disposal, changes in operating methods, and other available options.

(k) Except as provided below, technology based effluent limitations imposed in permits shall not be adjusted for pollutants in the intake water.

1. Upon request of the discharger, technology based effluent limitations or standards shall be adjusted to reflect credit for pollutants in the discharger's intake water if:
  - i. The applicable effluent standards specifically provide that they may be applied on a net basis; or
  - ii. The discharger demonstrates that the control system it proposes or uses to meet applicable technology based limitations and standards would, if properly installed and operated, meet the effluent limitations and standards in the absence of pollutants in the intake water;
2. The permit includes conditions requiring:
  - i. The permittee to conduct additional monitoring (for example, for flow and concentration of pollutants) as necessary to determine continued eligibility for and compliance with any such adjustments; and
  - ii. The permittee to notify the Department if eligibility for an adjustment under this section may no longer be applicable. In that case, the permit shall be modified accordingly under N.J.A.C. 7:14A-16.4(b)8;
3. Credit for generic pollutants such as biochemical oxygen demand (BOD) or total suspended solids (TSS) shall not be granted unless the permittee demonstrates that the constituents of the generic measure in the effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process water pollutants either at the outfall or elsewhere;



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4. Credit shall be granted only to the extent necessary to meet the applicable limitation or standard, up to a maximum value equal to the influent value. Additional monitoring may be necessary to determine continued eligibility for credits and compliance with permit limits;
5. Credit shall be granted only if the discharger demonstrates that the intake water is drawn from the same body of water into which the discharge is made. For the purposes of this provision, same body of water means any hydrologically connected waterbody provided chemical characteristics are essentially identical. Chemical characteristics may be evaluated on a parameter by parameter basis; and
6. The discharge of raw water clarifier sludge generated from the treatment of intake water shall not be adjusted for pollutants in the intake water.

(l) The development of technology based effluent limitations shall incorporate alternative effluent limitations or standards where warranted by fundamentally different factors under N.J.A.C. 7:14A-11.7(b)1.

(m) Technology based effluent limitations shall be established under this section for solids, sludges, filter backwash, and other pollutants removed in the course of treatment or control of wastewaters in the same manner as for other pollutants.

7:14A-13.5. Determination of the Reasonable Potential to Cause an Excursion above the SWQS as a Basis for Requiring Inclusion of Water Quality Based Effluent Limitations

(a) Water quality based effluent limitations shall control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants, including whole effluent toxicity) which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above the Surface Water Quality Standards.

(b) When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an instream excursion above any Surface Water Quality Standard the Department shall evaluate and consider existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the test species to toxicity testing (when evaluating whole effluent toxicity), and, where appropriate, the available dilution of the effluent in the receiving water.

(c) The dilution of the effluent in the receiving water shall be determined in accordance with N.J.A.C. 7:9B-1.5(c)4.

(d) A separate determination of reasonable potential shall be made for each pollutant or pollutant parameter of interest (either conventional, nonconventional, or toxic pollutants, including acute and chronic whole effluent toxicity) that is or may be discharged from the facility. These determinations shall be based on a WLA or site specific allocation.

(e) The discharge shall be determined to cause an excursion above the Surface Water Quality Standards if the maximum reported effluent concentration, considering the criteria averaging period, for the pollutant of interest is greater than the WLA or the site specific allocation for that pollutant.

(f) The discharge shall be determined to contribute to an excursion above the the Surface Water Quality Standards if the maximum reported effluent concentration, considering the criteria averaging period, for the pollutant of interest when considered collectively with other discharges to the receiving water is greater than the WLA determined for that pollutant.

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(g) The discharge shall be determined to have the reasonable potential to cause an excursion above the Surface Water Quality Standards if the maximum projected effluent concentration is greater than the WLA or site specific allocation determined for that discharge for that pollutant or pollutant parameter. The maximum projected effluent concentration shall be calculated in accordance with the USEPA TSD, as amended and/or supplemented, unless the permittee demonstrates for a given pollutant of interest that none of the methods in the TSD are applicable and that an alternative statistical method more accurately estimates the maximum projected effluent concentration.

(h) Where an effluent concentration is directly caused by a documented facility upset, or other unusual event which has been identified and appropriately remedied by the permittee, data collected during the period of upset may be eliminated when making a determination of reasonable potential. Data no longer representative of effluent quality because of process modification or pollution prevention activities undertaken shall not be used when making a determination of reasonable potential.

(i) (Reserved)

(j) (Reserved)

(k) When the Department determines that a discharge does not cause, have reasonable potential to cause, or contribute to an excursion above the water quality standards for a specific pollutant or pollutant parameter; or that data are insufficient to make such a determination:

1. Except as specified in (k)1i through iii below, water quality based effluent limitations shall not be required for that pollutant or pollutant parameter.
  - i. Where the discharge is in compliance with an existing water quality based effluent limitation and the permittee provides treatment for the limited pollutant or pollutant parameter, the reissued permit shall include a water quality based effluent limitation for the affected pollutant or pollutant parameter unless the permittee demonstrates to the satisfaction of the Department that a water quality based limitation is no longer required and that the existing effluent quality is anticipated to be maintained.
  - ii. When the Department determines in accordance with (k)1i above that a water quality based effluent limitation is not required for the reissued permit, the fact sheet for the reissued permit shall include a summary of effluent data for the pollutant or pollutant parameter, a justification for eliminating the effluent limitation, and a determination that eliminating the effluent limitation is not anticipated to cause or contribute to an exceedance of the surface water quality standards.
  - iii. When the Department determines in accordance with (k)1i above that a water quality based effluent limitation is not required for the reissued permit, the discharge permit shall be reopened and modified to include water quality based effluent limitations if the effluent quality changes so as to cause, contribute, or have the reasonable

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potential to cause or contribute to an excursion above the Surface Water Quality Standards.

iv. The Department shall consider the following factors when making a determination regarding reasonable potential for discharges with existing water quality based effluent limitations:

(1) The permit compliance history for the facility, including the compliance history for the specific pollutant or pollutant parameter and any permit conditions related to the pollutant or pollutant parameter;

(2) The reliability of the treatment process; and

(3) The ratio between the permitted or actual effluent flow and the base flow of the receiving water;

2. Effluent limitations other than water quality based limitations may be required for the pollutant or pollutant parameter in accordance with N.J.A.C. 7:14A-13.3; and

3. The Department may determine that monitoring for specific pollutant or pollutant parameters shall be included in the permit.

(l) When the Department is unable to determine for one or more pollutants or pollutant parameters of interest whether the discharge from a particular facility will cause, have the reasonable potential to cause, or contribute to an excursion above a Surface Water Quality Standard, the permit for that facility shall include effluent monitoring requirements for each pollutant or pollutant parameter where such a determination cannot be made. The discharge permit shall be reopened and modified to include water quality based effluent limitations if subsequent monitoring demonstrates that the discharge causes, contributes, or has the reasonable potential to cause or contribute to an excursion above the Surface Water Quality Standards.

(m) For a facility that discharges any pollutant which is present in the process intake water, the Department may, on a site specific basis, determine that the discharge does not cause, have reasonable potential to cause, or contribute to an excursion above the water quality standards in accordance with the following:

1. (Reserved)

2. (Reserved)

3. The discharge shall meet the following conditions:

i. The source for all of the intake water shall be the receiving water body. Hydrologically connected waterbodies may be determined to be the same waterbody if the water is completely mixed within a reasonable distance of the outfall location and if the chemical characteristics of the waterbodies are essentially identical. Chemical characteristics may be evaluated on a parameter by parameter basis. For discharges where the intake water is attributed to more than one source, this condition may be applied to the proportion of the intake

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water attributable to the receiving water or hydrologically connected waterbody;

- ii. The discharge shall not contribute any additional mass of the pollutant of interest to the process intake water. This determination shall be based on a statistically rigorous analysis of intake water and outfall data that is representative of various operating conditions and influences over time and demonstrates that there is no significant difference at the 99th percent probability level between the intake concentrations and loadings and the outfall concentrations and loadings. For a DTW, this condition shall be deemed to be met if there is no significant difference at the 99th percent probability level between the intake concentrations and loadings of the public drinking water supply in the area served and the effluent concentrations and loadings. Where the source water is attributed to more than one water supply source, this condition may be applied to the proportion of the source water attributable to the receiving water or hydrologically connected waterbody;
  - iii. The discharger shall not chemically or physically alter the intake water to cause an adverse impact to the receiving stream for any pollutant of interest in the process intake water;
  - iv. The pollutant shall not accumulate at the outfall location or at the edge of the mixing zone in such a way as to increase the concentration of the pollutant. The Department may require submission of an acceptable mixing zone study to satisfy this requirement; and
  - v. The timing and/or location of the discharge shall not cause adverse impacts in the receiving waterbody that would not have occurred if the pollutant had remained in the waterbody.
4. The permit shall include the necessary monitoring conditions to ensure continuing compliance with the conditions listed in (m)3 above.
  5. The discharge permit shall be reopened and modified to include water quality based effluent limitations if subsequent monitoring demonstrates that the discharge causes, contributes, or has the reasonable potential to cause or contribute to an excursion above the surface water quality standards at N.J.A.C. 7:9B.
  6. The permit fact sheet shall include a description of the treatment process and specific reasons for making the determination that the discharge does not cause, have reasonable potential to cause or contribute to an excursion above the water quality standard for the pollutants or pollutant parameters subject to this subsection.

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7. For any pollutant or pollutant parameter where the conditions listed in (m)3 above cannot be met, reasonable potential shall be determined in accordance with (d) through (k) above.
8. For site remediation projects, reasonable potential shall be determined in accordance with this subsection only for pollutants not subject to remediation.

7:14A-13.6. Calculation of Water Quality Based Limitations

(a) When the Department determines pursuant to N.J.A.C. 7:14A-13.5 that a discharge causes, has the reasonable potential to cause, or contributes to an excursion above a Surface Water Quality Standard, a water quality based effluent limitation for each pollutant or pollutant parameter including WET, shall be determined in accordance with the USEPA TSD, as amended and/or supplemented, unless the permittee demonstrates that none of the methods in the TSD are applicable and that an alternative method will result in a water quality based effluent limitation that ensures compliance with the Surface Water Quality Standards.

7:14A-13.7. Determination of Water Quality Based Effluent Limitations Based on Narrative Criteria

(a) Where the Department has not established a numerical water quality criterion for a specific chemical pollutant but has determined that such a pollutant is present in an effluent at a concentration that causes, has the reasonable potential to cause, or contributes to an excursion or potential excursion above a narrative criterion in the Surface Water Quality Standards, the Department shall:

1. Establish effluent limitations using a calculated numeric criterion utilizing the best available scientific information and developed in accordance with N.J.A.C. 7:9B-1.6(c)4iii; or
2. Establish effluent limitations on a surrogate parameter (for example, whole effluent toxicity) for the pollutant of interest, in accordance with N.J.A.C. 7:14A-13.10, provided:
  - i. The permit identifies which pollutants are intended to be controlled by the use of the effluent limitation;
  - ii. The fact sheet sets forth the basis for the limit, including a finding that compliance with the effluent limit on the surrogate parameter will result in controls on the pollutant of concern which are sufficient to attain and maintain applicable Surface Water Quality Standards;
  - iii. The permit requires the effluent and ambient monitoring necessary to show that during the term of the permit the limit on the surrogate parameter continues to attain and maintain applicable Surface Water Quality Standards; and
  - iv. The permit shall be reopened and limitations on the base parameters included therein if the limits on the surrogate parameter no longer attain and maintain applicable Surface Water Quality Standards.

7:14A-13.8. Calculation of Effluent Limitations using Existing Effluent Quality

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(a) Effluent limitations based on existing effluent quality shall be calculated according to the following procedure:

1. The maximum projected effluent concentration shall be calculated in accordance with the statistical method contained in the USEPA TSD, as amended and/or supplemented, unless the permittee demonstrates that the method in the TSD is not applicable and that an alternative statistical method more accurately estimates the maximum projected effluent concentrations.
- i. The following conditions apply:
  - (1). If at least 10 data points are available, a site specific coefficient of variation shall be determined.
  - (2). If fewer than 10 data points are available, the permit shall require monitoring and include a reopener clause to include existing effluent quality limitations based on 10 or more data points.
  - (3). The 95 percent confidence interval and the 95 percent probability basis shall be used.
- ii. Effluent data generated during a documented facility upset, or other unusual event which has been identified and appropriately remedied by the permittee, may be eliminated when determining effluent limitations based on existing effluent quality;
2. The maximum daily limitation shall be set equal to the maximum projected effluent concentration; and
3. The average monthly limitation shall be calculated from the maximum daily limitation according to the procedure described in N.J.A.C. 7:14A-13.6, using the sampling frequency required in the discharge permit. If the required sampling frequency is once per month or less, an average monthly limitation may be eliminated for that pollutant or pollutant parameter.

(b) Where an interim effluent limitation is required in accordance with N.J.A.C. 7:14A-13.11 for the time period prior to the effective date of a final effluent limitation, limitations reflecting existing effluent quality shall be calculated in accordance with (a) above.

#### 7:14A-13.9 Seasonal Effluent Limitations

(a) Seasonal water quality based effluent limitations for continuous discharges may be developed in accordance with the following:

1. The permittee shall submit the necessary water quality studies that address any effects or potential effects on nutrient cycling and potential or actual adverse biological impacts in other waterbody segments related to nutrients.
2. The seasonal limitations shall be developed from a seasonal TMDL or a seasonal site specific allocation for the specific pollutant(s) or pollutant parameter(s) which addresses critical conditions applicable to each season for which an effluent limitation is requested.

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3. Seasonal water quality based effluent limitations shall be developed only for the following parameters and groups of parameters and only insofar as the warm weather limitations cannot be achieved due to decreases in biological treatment efficiency during cold weather:
  - i. Parameters affecting dissolved oxygen dynamics in the receiving stream;
  - ii. Nutrients, including phosphorus and nitrogen; and
  - iii. Ammonia-N, to protect against toxic effects in the receiving water.
4. Except as specified at (a)5 below, seasonal water quality based effluent limitations shall be developed for two seasons in each year.
5. Seasonal WLAs or site specific allocations may be developed for shorter periods of time including more than two seasons when the United States Geological Survey provides a reliable estimate of applicable stream design flows from a gauging station located in the vicinity of the discharge location.

7:14A-13.10 Surrogate Effluent Limitations

(a) Surrogate limitations may be included in a discharge permit in accordance with the following:

1. The permittee shall submit a written request to the Department which includes the specific parameter(s) to be used as a surrogate and specifically lists the base parameter(s) for which the surrogate parameter is requested;
2. The request shall include a detailed report demonstrating that the requested surrogate parameter is a reliable, precise and accurate surrogate. This report shall include, at a minimum, effluent data demonstrating the relationship, including the value(s) of the surrogate parameter(s) corresponding to the limitation(s) for the base parameter(s), between the proposed surrogate(s) and the parameters for which the surrogate is requested;..
3. Where the Department approves the use of a surrogate, the fact sheet for the draft permit shall set forth the basis for the limit, including a finding that compliance with the effluent limit for the surrogate parameter shall result in controls on the pollutant of interest which are sufficient to attain the applicable effluent limitations. The permit shall identify which pollutants are intended to be controlled by the use of the surrogate limitation;
4. If the permit includes a limitation for the surrogate parameter(s) with a basis separate from the use of the parameter as a surrogate, the surrogate limitation(s) may be included in addition to any limitation for the surrogate parameter based on technology, water quality concerns, or effluent standards;
5. Where an effluent limitation is being imposed on a delegated local agency in accordance with N.J.S.A. 58:10A-7b(3) for categorical or other pollutants, the permittee may request the use of surrogate parameters in accordance with the following additional requirements:
  - i. Where a delegated local agency has requested that whole effluent toxicity be considered as the surrogate parameter for a limitation

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calculated for a toxic pollutant, the Department may presume that, subsequent to the effective date of the whole effluent toxicity limitation, compliance with the water quality based whole effluent toxicity limitation satisfies the report submittal requirements specified in (a)2 above;

- ii. Upon its determination that the requested surrogate parameter is an appropriate and reliable surrogate, the Department shall include in the discharge permit effluent limitations for both the surrogate parameter(s) and the base parameter(s). Compliance with the base parameter(s) shall be determined based on compliance with the surrogate parameter; and
  - iii. The permit shall require that, if the surrogate parameter is exceeded, the effluent limitations covered by the surrogate shall become effective upon notification by the Department, unless the permittee demonstrates that the base parameters were not exceeded at the time that the surrogate parameter was exceeded. The permit may also include procedures for re-establishment of the use of a surrogate parameter;
6. The permit shall require the monitoring necessary to demonstrate that during the term of the permit the limit on the surrogate parameter continues to attain and maintain applicable effluent limitations. The permit shall require monitoring of the surrogate parameter and may also require monitoring of the base parameter(s) covered by the surrogate parameter;
  7. The permit shall be reopened and modified to include limitations on the base parameter(s) if the Department determines that the surrogate parameter(s) no longer ensure attainment of the applicable effluent limitations for the base parameter(s); and
  8. The Department, upon its own initiative, may include a limitation for a surrogate parameter irrespective of a request by the affected permittee provided the fact sheet sets forth the basis for the limit, including a finding that compliance with the effluent limit on the surrogate parameter will result in controls on the pollutant of concern that are sufficient to attain the applicable effluent limitations and the permit conditions in (a)5 and 6 above are satisfied.

#### 7:14A-13.11 Interim Effluent Limitations

(a) Interim limits may be established for any pollutant or pollutant parameter where a final limit is required in accordance with N.J.A.C. 7:14A-13.6 and where a compliance schedule is included in the discharge permit to allow the permittee to come into compliance with the effluent limitation.

(b) If the Department determines that interim limits are appropriate, the limits shall be determined in accordance with N.J.A.C. 7:14A-12, 13.4, or 13.8 so as to ensure that the current effluent quality of the discharge shall be maintained.

#### 7:14A-13.12 Wet Weather Effluent Limitations



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(a) An applicant or permittee may request effluent limitations less stringent than those required by N.J.A.C. 7:14A-13.3, 13.4 or 13.6, which are applicable only during periods of excessive effluent flow due to precipitation events, provided one or more of the following criteria is met:

1. The facility receives excessive infiltration and inflow. In such cases the permit shall include the following conditions:
  - i. For effluent flows up to and including the hydraulic capacity of the facility, the effluent quality shall comply with applicable effluent limitations determined in accordance with N.J.A.C. 7:14A-13.3, 13.4 or 13.6;
  - ii. For effluent flow in excess of the hydraulic capacity of the facility, the quantity of flow greater than the hydraulic capacity shall receive treatment consisting of, at a minimum, screening and disinfection. Wherever practicable, treatment shall also include settling and, if applicable, dechlorination;
  - iii. A schedule in the permit addressing elimination of the excess inflow and/or infiltration; and
  - iv. The permittee shall consent to the provisions incorporating the permit conditions imposed in accordance with (a)1i through iii above prior to the issuance of the final discharge permit;
2. The facility qualifies for special consideration in accordance with N.J.A.C. 7:14A-12.3. In such cases the modification of effluent limitations and permit conditions shall be limited to that available in accordance with N.J.A.C. 7:14A-12.3; or
3. The facility receives flow from combined sewers. In such cases the permittee shall be required to maximize the flow to the treatment facility and minimize the flow through the combined sewer overflow. The permittee shall evaluate and implement options for eliminating the extraneous flow. The options to be explored shall include, but shall not be limited to, reducing or eliminating one or more overflows, providing a reduced level of treatment for a portion of the flow, and, in some cases, separation of the sanitary and storm sewers. The permit shall include a schedule addressing reduction or elimination of the excess flow as appropriate. Any discharge from combined sewer overflows shall be consistent with the USEPA final policy for combined sewer overflows. See 59 Fed. Reg. 18688 (April 19, 1994), which is incorporated at N.J.A.C. 7:14A-11 Appendix C.

(b) An applicant or permittee may request less stringent effluent limitations than those required by N.J.A.C. 7:14A-13.6, which are applicable only during periods of excessive precipitation, if the applicant or permittee completes a water quality study which demonstrates to the satisfaction of the Department that the effluent limitations will ensure attainment of the Surface Water Quality Standards at N.J.A.C. 7:9B and the discharge permit includes monitoring and/or reporting conditions to verify that modeling assumptions are valid when the wet weather limitations are applicable. At a minimum the water quality study shall be conducted in

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accordance with a QA/QC project work plan approved by the Department and shall include the following:

1. An evaluation of point and nonpoint sources of pollutants with impacts which overlap with the effects of the permittee's discharge, including the fate of pollutants of interest and cumulative or synergistic effects;
2. A statistical analysis of the relationships among hydraulic considerations such as waterbody flow, the quantity and intensity of the storm event, and effluent flow, influent water quality, effluent water quality, and ambient water quality;
3. The magnitude and duration of storm events which statistically correspond to the hydraulic capacity of the facility; and
4. The extent of effluent and receiving water mixing over the range of stream and effluent flows for which wet weather effluent limitations are requested.

7:14A-13.13 Quantity of Flow Used in the Determination of Effluent Limitations

(a) Effluent flows used for the determination of effluent limitations, standards, or prohibitions shall be established as described below:

1. Permit limitations for continuous discharges shall be determined as follows:
  - i. For DTWs, the design flow for the facility shall be used when determining permit effluent limitations.
  - ii. For non-DTWs, a reasonable measure of actual production of the facility, unless otherwise required by an effluent guideline or effluent standard, shall be used when determining effluent limitations. For new sources or new dischargers, actual production shall be estimated using projected production. The time period of the measure of production shall correspond to the time period of the calculated permit limits (for example, monthly production shall be used to calculate average monthly discharge limitations).
  - iii. The permit may include interim permitted flows that are less than the final design flow to reflect the anticipated effluent flow for the duration of the permit. The projected fifth year flow may be used for DTWs in the determination of water quality based effluent limitations applicable during periods prior to the facility utilizing the full design flow.
2. Effluent flow restrictions shall be included in discharge permits as permit conditions, rather than as numerical effluent limitations, unless the Department determines on a site specific basis that the quantity of effluent flow is of concern and shall be included as a permit limitation. The Department shall state in the permit fact sheet the reason(s) for such determination. The Department may incorporate flow-related requirements necessary to implement the capacity assurance or Treatment Works Approvals programs at N.J.A.C. 7:14A-22 and the Statewide Water Quality Management Planning process at N.J.A.C. 7:15.

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7:14A-13.14 Expression of Effluent Limitations

- (a) Effluent limitations shall be expressed as described below:
  - 1. Water quality based effluent limitations shall be expressed as both concentration and mass loading, except as listed in (a)1i through iv below:
    - i. For parameters such as pH, temperature, radiation, or other pollutants, which cannot be appropriately expressed in terms of concentration and mass, the effluent limitations shall be expressed in units appropriate to the parameter;
    - ii. Water quality based limitations for whole effluent toxicity shall be expressed as the LC<sub>50</sub> or No Observed Adverse Effect Concentration, as appropriate, and equivalent acute toxic units for acute whole effluent toxicity limitations and as the IC<sub>25</sub> and equivalent chronic toxic units for chronic whole effluent toxicity limitations;
    - iii. If the ratio of the receiving stream flow within the mixing zone to the total effluent flow is greater than 100:1, the effluent limitations shall be expressed only as mass loading without an effluent limitation for concentration, provided that no specific regulatory requirement is applicable which would require limitations on effluent concentration;
    - iv. Water quality based limitations determined from a TMDL/WLA may be expressed as either concentration or mass loading if:
      - (1) The TMDL has been adopted in accordance with N.J.A.C. 7:15-7; and
      - (2) The TMDL specifically states that the associated water quality based effluent limitations shall be expressed only as either concentration or mass loading.
  - 2. Limitations which are based on N.J.A.C. 7:14A-13.2(a)1 or (a)5 shall be expressed as concentration and mass loading for DTWs and as mass loading for all other dischargers, except as provided below:
    - i. For parameters such as pH, temperature, radiation, or other pollutants, which cannot be appropriately expressed in terms of concentration and mass, in which case the effluent limitations shall be expressed in units appropriate to the parameter;
    - ii. When applicable standards and limitations are expressed in terms of other units of measurement. For example, limitations for whole effluent toxicity shall be expressed as the LC<sub>50</sub> or No Observed Adverse Effect Concentration, as appropriate, and equivalent acute toxic units for acute whole effluent toxicity limitations and as the IC<sub>25</sub>

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and equivalent chronic toxic units for chronic whole effluent toxicity limitations;

- iii. When limitations are developed on a case-by-case basis and expression of the limitation as mass is infeasible because the mass of the pollutant discharged cannot be related to a measure of operation;
3. (Reserved)
4. Limitations based on the effluent standards for site remediation projects at N.J.A.C. 7:14A-12 Appendix B shall be expressed as concentration;
5. Limitations based on the effluent standards for new source and expanded discharges at N.J.A.C. 7:14A-12 Appendix C shall be expressed as mass and concentration, unless the discharge meets the qualifications at (a)1iii above; and
6. Limitations may be expressed as concentration or mass, or as concentration and mass, when such expression is required by authority or rules adopted by another regulatory agency. Other regulatory agencies include the Pinelands Commission, the Delaware River Basin Commission, or the Interstate Environmental Commission.

(b) All permit effluent limitations, effluent standards, or prohibitions for a metal shall be expressed in terms of total recoverable metal unless:

1. An applicable effluent standard or limitation has been promulgated under the Federal Act and specifies the limitation for the metal in the dissolved, valent or total form;
2. In establishing permit limitations on a case-by-case basis under N.J.A.C. 7:14A-13.4, it is necessary to express the limitation on the metal in the dissolved, valent, or total form to carry out the provisions of the Federal Act; or
3. Approved analytical methods for the metal inherently measure only its dissolved form (for example, hexavalent chromium).

#### 7:14A-13.15 Permit Averaging Periods

(a) Permit averaging periods for continuous discharges shall be determined as follows:

1. Limitations on industrial treatment works for conventional, non-conventional, and toxic pollutants shall, unless impracticable, be stated as maximum daily and average monthly discharge limitations;
2. Limitations for conventional and non-conventional pollutants discharged from a DTW shall, unless impracticable, be stated as average weekly and average monthly discharge limitations. Limitations on toxic pollutants discharged from a DTW shall, unless impracticable, be stated as maximum daily and average monthly discharge limitations;
3. Limitations on any pollutant or pollutant parameter where the monitoring frequency is once per month or less may be stated as a maximum daily limitation. Average monthly limitations may also be included on a site

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specific basis if the Department determines that such limitations are necessary to adequately regulate the discharge of pollutants from the facility;

4. For whole effluent toxicity where the effluent monitoring frequency is once per month or less, the maximum daily effluent limitation shall be stated as the No Observed Adverse Effect Concentration or minimum LC<sub>50</sub> (for acute whole effluent toxicity) or minimum IC<sub>25</sub> (for chronic whole effluent toxicity) and as a maximum acute or chronic toxic units. Average monthly limitations may also be included on a site specific basis if the Department determines that such limitations are necessary to adequately regulate the discharge of pollutants from the facility;
5. For limitations other than water quality based limitations which may be imposed on DTWs, where the average weekly limitation is calculated from the average monthly limitation, or the reverse, the Department may use a factor of 1.5 to calculate the average weekly limitation from the average monthly limitation or, alternatively, may, at the request of the applicant, use the statistical procedures at N.J.A.C. 7:14A-13.6 to determine the appropriate average weekly limitation; and
6. For intermittent flows, the maximum limitation shall be applicable during periods of actual discharge.

7:14A-13.16 Point of Compliance for Effluent Limitations

- (a) The point of compliance for each outfall shall be established as follows:
  1. Permit effluent limitations, standards, prohibitions, and monitoring requirements shall be established for each outfall or discharge point of the permitted facility, except as provided under N.J.A.C. 7:14A-6.2(b) (BMPs where limitations are infeasible), (a)2 below (limitations on internal waste streams), (a)6 below (alternate monitoring point for whole effluent toxicity), and (a)7 below (discharges into storm sewers);
  2. Effluent limitations or standards for discharges of pollutants may be imposed on internal waste streams before mixing with other waste streams or cooling water streams when:
    - i. Permit effluent limitations for the final effluent are impracticable or infeasible to calculate; or
    - ii. Monitoring of the final mixed effluent or point of discharge is impracticable or infeasible;
  3. Internal monitoring points shall be established in cases where two or more different types of wastewater (for example, process waste, domestic waste, stormwater, non-contact cooling water) mix prior to entering the receiving water, unless such monitoring points are deemed to be unnecessary by the Department;
  4. When the point of compliance is an internal waste stream, the monitoring required by N.J.A.C. 7:14A-14.2 shall be applied to the internal waste stream;

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5. When the point of compliance is an internal waste stream, the fact sheet under N.J.A.C. 7:14A-15.8 shall set forth the circumstances which make such limitations necessary, such as that the final discharge point is inaccessible, the wastes at the point of discharge are so diluted as to make monitoring impractical, the interferences among pollutants at the point of discharge would make detection or analysis impracticable, or two or more waste streams are mixed prior to discharge;
6. For whole effluent toxicity, an alternate point of compliance may be established prior to chlorination if either of the following applies:
  - i. The whole effluent toxicity limitation is based on N.J.A.C. 7: 14A-5.3; or
  - ii. The permit includes water quality based limitations for chlorine produced oxidants and the following conditions are met:
    - (1) The discharge is in compliance with the water quality based effluent limitations for chlorine produced oxidants at the point of discharge or such limitations have been determined to be unnecessary;
    - (2) A dechlorination treatment step is not required to attain the water quality based limitations for chlorine produced oxidants;
    - (3) Establishment of a monitoring point after chlorination at the point of discharge is impracticable or infeasible;
    - (4) Samples collected after chlorination are not able to attain the water quality based effluent limitation for whole effluent toxicity; and
    - (5) The permittee demonstrates to the Department's satisfaction that the failure to attain the water quality based limitation in samples collected post-chlorination is due to the presence of chlorine produced oxidants in the effluent sample;
7. For discharges into stormwater conveyances, the point of compliance shall be established prior to the discharge into the stormwater conveyance, unless the Department determines on a site specific basis that an alternate point of compliance is appropriate.

#### 7:14A-13.17 Toxicity Reduction Evaluations

- (a) Toxicity reduction requirements shall be included in discharge permits which include a whole effluent toxicity limitations as follows:
  1. When a minimum of two tests out of six consecutive whole effluent toxicity tests demonstrate that the effluent does not comply with the effluent limitation, the permittee shall initiate toxicity reduction implementation requirements.

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2. Where an exceedance of the permit limit is directly caused by a documented facility upset, or other unusual event which has been identified and appropriately remedied by the permittee, test data collected during the period of upset may be eliminated when determining the necessity of initiating the following toxicity reduction implementation requirements.
3. Toxicity reduction requirements apply to limitations that are in effect or become effective during the term of the permit.
4. The permittee shall conduct a tiered investigation as specified below:
  - i. Within 30 days of the close of the monitoring period which contained the second violation specified in (1) above, the permittee shall initiate the toxicity characterization phase of monitoring consisting of increased monitoring frequency for a total of 12 additional tests, as follows:
    - (1) For major facilities, monthly effluent monitoring; and
    - (2) For minor facilities, semi-monthly effluent monitoring.
  - ii. Upon the third exceedance of the toxicity limit for a major facility or upon the fourth exceedance of the toxicity limit for a minor facility of the tests conducted during the characterization phase, a preliminary toxicity identification shall be conducted, which includes (a)4ii(1) through (5) below as applicable to a specific facility. This preliminary toxicity identification shall be completed within 15 months of completing the toxicity characterization phase:
    - (1) Treatment plant performance evaluation;
    - (2) Pretreatment program information;
    - (3) Evaluation of levels of ammonia-N and chlorine produced oxidants and their effect on the toxicity of the discharge;
    - (4) Evaluation of chemical use and processes at the facility; and
    - (5) Evaluation of incidental facility procedures (such as washing of floors and chemical spill disposal) which may contribute to effluent toxicity.
5. Where the data collected during the Toxicity characterization phase indicate consistent compliance with the whole effluent toxicity limit for four (4) consecutive tests, the toxicity reduction implementation requirements are deemed complete and the permittee may return to the monitoring frequency for WET specified in the discharge permit.
6. Where a preliminary toxicity identification has not resulted in compliance with the final effluent limitation, the permittee shall initiate a comprehensive

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toxicity investigation phase within six months of the completion of the preliminary investigation.

7. Within three months of the demonstration that a comprehensive toxicity investigation is necessary, the permittee shall submit a project study plan. The project study plan shall identify the party or parties responsible for the conduct of the comprehensive evaluation, establish a schedule for completion of the study, and identify and describe the technical approach which the study will utilize. The schedule for completion of the toxicity reduction evaluation is subject to Departmental approval.
  - i. Quarterly progress reports shall be submitted during the term of the toxicity reduction implementation requirements. The reports shall include a summary of data collected and actions taken during the applicable quarter. A copy of the transmittal letter for each quarterly report shall be forwarded to the applicable regional Enforcement Bureau; and
  - ii. A final report shall be submitted which identifies the specific actions taken by the permittee to achieve compliance, describes and identifies the pollutants or groups of pollutants contributing to or causing the whole effluent toxicity exceedances, and describes the final corrective actions taken to achieve compliance and the outcome of the study.
8. The permittee may elect to complete an instream verification study prior to the initiation of the comprehensive toxicity identification/reduction phase specified in (a)6 above. If the permittee selects this option, a project work plan approved by the Department shall be submitted in lieu of the project work plan specified in (a)7 above. This option shall be limited to permittees with discharges to non-tidal, freshwater receiving waters where a regulatory mixing zone of a defined size and shape has been established for the discharge. The study shall be completed and submitted to the Department for evaluation within two years of selecting this alternative.
  - i. Where the results of an instream verification study definitively demonstrate that there are no existing or potential adverse impacts from the discharge, the Department shall determine that the permittee is exempt from the requirements of (a)6 above.
  - ii. If the data submitted for this study are deemed insufficient by the Department to make a determination that there are no existing or potential adverse impacts from the discharge, the permittee shall initiate the comprehensive toxicity identification and reduction evaluation requirements of (a)6 above within 90 days of notification by the Department that the instream verification study was insufficient to make a determination.



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- iii. The instream verification study shall be completed in accordance with the approved project work plan. Evaluation of the instream data may also require completion of a mixing zone study.

7:14A-13.18. Inclusion of Action Levels for Water Quality Based Effluent Limitations

(a) Where the Department has developed water quality based effluent limitations utilizing a chemical equilibrium which includes non-limited pollutants or pollutant parameters which control the chemical equilibrium, action levels for the controlling pollutants or pollutant parameters equal to the values used in the chemical equilibrium calculation shall be included in the permit as permit monitoring conditions.

(b) For ammonia-N limitations, action levels shall be determined and included for pH and may be included for temperature, alkalinity or hardness.

(c) For those metals where the applicable criterion is dependent on hardness, an action level shall be included for hardness.

(d) If the discharge is not in conformance with the applicable action level for a period of time not to exceed the duration of the applicable criterion, the permittee shall take the specific actions stipulated in the discharge permit. These actions may require the permittee to:

1. Collect the necessary instream data during the period of the non-conformance to determine if the instream criteria were exceeded during the period of non-conformance; and
2. Prepare and submit with the monthly DMR, a report which details the frequency and duration of any non-conformance with the action levels as set forth in the permit and includes all instream and effluent data collected during periods of non-conformance.

(e) If the action levels set forth in the permit are exceeded more frequently than once in any monthly monitoring period, the action levels shall be re-evaluated and, if necessary, the effluent limitations associated with those action levels shall be recalculated. The permit shall be reopened and modified to include the updated effluent limitations and the associated action levels. The permit shall be reopened and modified to adjust the action levels and/or the effluent limitations if monitoring data demonstrate that the discharge causes, contributes, or has the reasonable potential to cause or contribute to an exceedance of the surface water quality standards at N.J.A.C. 7:9B.

7:14A-13.19. Antibacksliding

(a) Except as provided for under Section 402(o) of the Federal Act (33 U.S.C. §1342(o)), when a permit is modified, renewed or reissued, all effluent limitations or standards shall be at least as stringent as the final and effective effluent limitations or standards in the previous permit.

7:14A-13.20 Limitations for Non-Continuous Discharges

(a) In addition to applicable requirements specified in N.J.A.C. 7:14A-13.2 through 13.19, discharges which are not continuous shall be specifically described and limited by one or more of the following measures, as appropriate:

1. Frequency (for example, a discharge shall not occur more often than once every three weeks);

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2. Total mass (for example, a discharge shall not exceed 100 kilograms of zinc and 200 kilograms of copper per batch discharge);
3. Maximum rate of discharge of pollutants during the discharge event (for example, the discharge shall not exceed two kilograms of zinc per minute);
4. Maximum concentration of pollutants (for example, the concentration shall not exceed one milligram per liter of zinc); and
5. Prohibition or limitation of specified pollutants by mass, concentration, or other appropriate measure (for example, a discharge shall not contain more than 0.1 mg/L of zinc at any time or more than 250 grams of zinc in any batch discharge).

7:14A-13.21. Implementation of Water Quality Based Effluent Limitations

(a) The implementation procedures in (b) through (e) below shall be utilized by the Department as a process to incorporate water quality based effluent limitations in discharge permits to ensure compliance with the Surface Water Quality Standards.

(b) Whole effluent toxicity shall be incorporated in discharge permits where a water quality based whole effluent toxicity limitation is required in accordance with N.J.A.C. 7:14A-13.5, water quality based whole effluent toxicity limitations shall be determined and incorporated into the discharge permit in accordance with N.J.A.C. 7:14A-13.6. The permit may include a schedule to achieve compliance with the water quality based limit.

1. Where a water quality based whole effluent toxicity limitation is not required, the discharge permit shall include an acute whole effluent toxicity limitation in accordance with N.J.A.C. 7:14A-5.3.

(c) Limitations for new sources, new discharges, or expanded direct discharges shall be established as follows:

1. Water quality based limitations for chemical specific parameters shall be incorporated into the discharge permit as required by N.J.A.C. 7:14A-13.5. Chemical specific limitations shall become effective on the effective date of the permit.
2. If a permittee/applicant qualifies in accordance with N.J.A.C. 7:14A-13.3 for limitations based on N.J.A.C. 7:14A-12 Appendix C for a specific pollutant, limitations for that pollutant may be incorporated into the discharge permit. The limitations shall become effective on the effective date of the permit. The effluent limitations shall be re-evaluated when a TMDL is adopted for the affected waterbody.
3. Where a water quality based whole effluent toxicity limitation is required in accordance with N.J.A.C. 7:14A-13.6, the water quality based limitation shall be incorporated into the discharge permit. The Department may include a compliance schedule not to exceed three years for water quality based whole effluent toxicity limitations.
4. Where a water quality based whole effluent toxicity limitation is not required, the discharge permit shall include an acute whole effluent toxicity limitation in accordance with N.J.A.C. 7:14A-5.3.

(d) For site remediation discharges, the site remediation effluent standards at N.J.A.C. 7:14A-12 Appendix B shall be incorporated into the discharge permit unless a water

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quality based effluent limit is determined in accordance with N.J.A.C. 7:14A-13.5 and 13.6 or the discharge qualifies in accordance with N.J.A.C. 7:14A-13.3(c)5 for limitations based on N.J.A.C. 7:14A-12 Appendix C. The limitations shall become effective on the effective date of the permit unless the Department determines that a compliance schedule is appropriate and is included in the permit. The site remediation limitations may be re-evaluated in conjunction with the TMDL process for the affected waterbody.

(e) For existing discharges, water quality based effluent limitations shall be incorporated into discharge permits in accordance with the following schedule:

1. All water quality based effluent limitations that have been previously included in the discharge permit shall be included in the renewal or reissuance of the discharge permit, unless the Department makes a determination that the discharge does not have the reasonable potential to cause or contribute to an excursion above the Surface Water Quality Standards, or that modification of the limitation is consistent with N.J.A.C. 7:14A-13.16 and 13.19.
2. Whenever appropriate, water quality based effluent limitations for conventional and non-conventional pollutants, including, but not limited to biochemical oxygen demand (BOD) (or any parameter serving as a surrogate for BOD), nitrogen compounds including ammonia-N, chlorine produced oxidants, total dissolved solids, and dissolved oxygen, shall be included in the discharge permit upon renewal or reissuance.
  - i. When a water quality based limitation is required to control dissolved oxygen dynamics in the receiving stream, the effluent limitations shall control both the carbonaceous and nitrogenous forms of BOD as necessary based on an evaluation of the reasonable potential of the discharge to cause or contribute to an exceedance of the water quality standards.
  - ii. Whenever possible, carbonaceous BOD (CBOD) shall be controlled through effluent limitations on CBOD<sub>5</sub> or CBOD<sub>20</sub>. Limitations on both CBOD<sub>5</sub> and CBOD<sub>20</sub> may be imposed to ensure consistency with water quality management plans and/or the requirements of other agencies.
  - iii. Nitrogenous BOD (NBOD) shall be controlled through effluent limitations on NBOD, ammonia-N, total N, or a combination of these measures.
3. When insufficient data are available to determine water quality based limitations for any conventional or non-conventional pollutant at the time of permit renewal or issuance, the permittee may be required to complete a water quality study to determine appropriate water quality based effluent limitations. In certain cases, the permittee may elect to participate in a watershed-based TMDL study, if the time frame for such study is determined to be acceptable by the Department.

This is a courtesy copy of this rule. All of the Department's rules are compiled in Title 7 of the New Jersey Administrative Code.